

ABSTRACT

A radiation detection device includes a light-receiving device array with a plurality of light-receiving devices arranged on a substrate to form a light-receiving portion and a plurality of bonding pads electrically coupled to the light-receiving devices of the light-receiving portion to form a bonding pad portion. A scintillator layer is deposited over at least a portion of the light-receiving devices for converting radiation into detectable light. A radiation-transmittable, moisture-resistant protective film covers at least the scintillator. A coating resin is located in proximity to a periphery of the moisture-resistant protective film, with the periphery of the moisture-resistant protective film being fixed to the light-receiving device array with the coating resin.